



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

MEMORANDUM

SEP 17 2003

SUBJECT: Transmittal of Inspection Report - RCRA

FROM: Betty J. Berry, Chief
ENSV/ARCM *Berry*

TO: Diane Huffman, Chief
ARTD/RESP

This memorandum transmits the following inspection report conducted by the Environmental Services Division:

FACILITY: Climax Molybdenum Company INSPECTION DATE: 06/24/2003 INSPECTION TYPE: CSI
INSPECTOR: Witkovski- G ID NUMBER: IAD000222653
ADDRESS: 2598 Highway 61 SIC CODE: ACTIVITY NUMBER:
Fort Madison FACILITY ACTIVITY: Molybdenum/Tungstun processor/smelter
IA 52627

PRELIMINARY INSPECTION FINDINGS: NOV/NOPF ISSUED - Yes SNC - No

HWD; universal waste.

COMMENTS:

MULTIMEDIA: 1) Screening done - Yes Screening forwarded - No Forwarded to: ☐ CAA
☐ CWA ☐ RCRA ☐ E/T ☐ UST ☐ CFC ☐ Wetlands ☐ SPCC ☐ UIC ☐ EJ ☐ PWS ☐ All

2) Inspection was part of a multimedia inspection with the following participating programs* -

* A=CAA, W=CWA, R=RCRA, T/E=TSCA/EPCRA, U=UST, C=CFC, U-I=UIC, S=SPCC, Wet.=Wetland, All

ENVIRONMENTAL JUSTICE: Inspection was conducted in EJ (per MM Screening Checklist) - No

SMALL BUSINESS REGULATORY ENFORCEMENT ACT (SBREFA): Information provided - Yes

419489



RCRA RECORDS



REPORT OF RCRA BEVILL SAMPLING INSPECTION

AT

CLIMAX MOLYBDENUM COMPANY

2598 HWY. 61

Fort Madison, IA 52627

(319) 463-2224

EPA ID Number: IAD000222653

ON

June 24, 2003

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY

Region VII

Environmental Services Division

INTRODUCTION

At the request of the Air, RCRA, and Toxics Division (ARTD), a RCRA Bevill Sampling Inspection (BSI) was conducted at Climax Molybdenum Company, Fort Madison, IA, on June 24, 2003. The BSI was conducted under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA), as amended. The BSI was conducted as a Level B Multimedia Inspection (attachment 1). This narrative report and attachments present the results of the BSI.

PARTICIPANTS

Climax Molybdenum Company (Climax):

Shelly Heston, Manager Environmental Affairs

Joe Bartholomew, Environmental Technician

U.S. Environmental Protection Agency (EPA):

Gary R. Witkovski, Environmental Engineer (Project Leader)

James Aycock, Environmental Scientist

INSPECTION PROCEDURES

Upon arrival at the facility, Mr. Aycock and I contacted Ms. Heston, who acted as the official facility representative during the course of the BSI. Ms. Heston had Mr. Bartholomew join us. Mr. Aycock and I presented Ms. Heston and Mr. Bartholomew with our EPA credentials. I then explained the purpose of the BSI and the procedures I would follow. I also explained that

Mr. Aycock and I were prepared to take samples, if necessary. I provided Ms. Heston and Mr. Bartholomew with the U.S. EPA Confidentiality Notice (Notice). I requested that they read the Notice and stated that at the conclusion of the BSI, the facility would be given the opportunity to make or not make a claim of confidentiality. I then provided Ms. Heston and Mr. Bartholomew with a copy of U.S. Federal Code 1001, which they read concerning false statements to federal inspectors. During the CEI, Mr. Aycock and I discussed and reviewed the facility operations, wastes generated, waste management practices, Bevill activities, and pertinent records. During the visual inspection, Mr. Aycock and I were accompanied by Ms. Heston and Mr. Bartholomew. At the conclusion of the BSI, Mr. Aycock and I discussed and reviewed our findings with Ms. Heston and Mr. Bartholomew. I provided Ms. Heston with the Notice which she signed indicating no confidential business information had been provided during the BSI (attachment 2). I also provided Ms. Heston with the Receipt For Documents and Samples and Notice Of Violation (NOV), both of which she signed as acknowledgment of receipt (attachments 3 and 4).

FACILITY DESCRIPTION

Ms. Heston stated that Climax extracts molybdenum (moly) from ore which is supplied from mines in Colorado. She stated that moly is used as an additive in the production of steel and some lubricants. Ms. Heston stated that sulfur dioxide is a by-product produced from the extraction process. She stated that Climax has an acid plant which uses the sulfur dioxide to produce sulfuric acid. For a more detailed description of the processes conducted at Climax, please refer to the 3007 Response Document located in the EPA Confidential Business Information file.

Climax is located in an industrial area to the south of Fort Madison, IA. Ms. Heston stated that construction of the facility started in 1974 and production began in 1978 or 1979. She stated that the site is approximately 700 acres, with the active industrial portion occupying 75 acres. Currently there are approximately 110 full time employees. Ms. Heston stated that the plant operates 24 hours per day, seven days per week. She stated that normal office hours are from 8:00 a.m. to 4:00 p.m., Monday through Friday.

During the BSI, Climax was inspected as a used oil and universal waste (spent fluorescent tubes) generator and a generator of less than 100 kg/mo (Conditionally Exempt Small Quantity Generator) of D001 and D008 characteristic, F003, F005 and U listed hazardous waste.

FINDINGS AND OBSERVATIONS

1. Waste Streams

A. Spent Acetone and Isobutyl Alcohol

Ms. Heston stated that acetone and isobutyl alcohol are used in the quality control lab. She stated that they are used to wash a sample to remove any oil. Ms. Heston stated that the spent acetone

and isobutyl alcohol are not stored in the lab, but are taken to a small storage building located on the east side of the administration and lab facility, **see photo 1**. She stated that this waste is disposed as a D001 characteristic and F003 list hazardous waste. Ms. Heston stated that approximately one 30-gallon container is generated per year.

At the time of the BSI, there was one empty 30-gallon container in storage. Ms. Heston stated that a full 30-gallon container had been shipped for disposal on June 16, 2003 (attachment 5). Mr. Bartholomew stated that he conducts weekly inspections on the storage area. He provided Mr. Aycock and me with a copy of the inspection checklist (attachment 6).

B. Waste Paint Related Material

Ms. Heston stated that waste paint related material is generated from painting by maintenance personnel and from the puncturing of spent aerosol paint cans. She stated that a 55-gallon accumulation container is located in the maintenance shop, **see photo 2**. Ms. Heston stated that a container of waste paint related material was shipped on June 16, 2003 (attachment 5). A review of the manifests indicate that a container of waste paint related material is generated approximately once every two years. The waste paint related material is disposed as a D001 and D008 characteristic and F003 and F005 listed hazardous waste.

C. Spent Glass Beads

Mr. Bartholomew stated that there is one bead blasting unit located on-site. He stated that the bead blasting unit uses glass beads for the blasting media. Mr. Bartholomew stated that the bead blasting unit is connected to a dust collector. He stated that the dust has been tested and determined to be non hazardous. Mr. Bartholomew provided me with a copy of the test results for the spent glass beads (attachment 7). The dust is disposed with the general trash.

D. Lab Pack

Ms. Heston stated that approximately once every two to three years a lab pack will be generated from the quality control lab. She stated that the lab pack consists of old out-dated chemicals. The lab pack may consist of characteristic as well as U listed hazardous wastes. At the time of the BSI, no old and out-dated chemicals were being stored on-site.

E. Spent Fluorescent Tubes

Spent fluorescent tubes are generated from the replacement of burned out tubes throughout the facility. Ms. Heston stated that the spent fluorescent tubes are managed as a universal waste. She stated that the spent fluorescent tubes are sent to A-Tec Recycling, Inc. (A-Tec), Des Moines, IA, for recycling (attachment 8).

During the visual inspection, Mr. Aycock and I observed four partially full containers of spent fluorescent tubes being stored in the domestic wastewater treatment building, **see photo 3**. The

containers were not labeled or dated, and were open. Mr. Aycock and I informed Ms. Heston and Mr. Bartholomew that these were violations of 40 CFR 273.13(d)(1), 40 CFR 273.14(e), and 40 CFR 273.15(c), (**#s 1, 2, and 3 on the NOV**). A review of the last A-Tec invoice indicated that the current spent fluorescent tubes have been in storage for approximately one month (attachment 8).

F. Wastewater Sludges

Ms. Heston stated that Climax has two on-site wastewater treatment units. One mechanical unit is for domestic wastewater (i.e., facility restrooms); the other is a lagoon system for the treatment of process wastewater. Ms. Heston stated that the domestic wastewater treatment system is designed for a capacity of 5,000 GPD. She stated that currently it is operating between 2,500 and 3,000 GPD. Mr. Heston stated that the wastewater sludge from this system is disposed at the Keokuk, IA wastewater treatment facility. She stated that approximately 3,000 gallons of sludge is disposed three times per year.

Ms. Heston stated that there are two one acre ponds for the treatment of the industrial wastewater. She stated that once every two years, approximately 3,000 tons of gypsum sludge is removed from the ponds. Ms. Heston stated that the gypsum sludge is taken to a landfill which is owned by Climax. She stated that the landfill is located in Argyle, IA. Ms. Heston stated that the gypsum sludge has been tested and is a non-hazardous waste.

G. Spent Super Sacks

Large poly woven bags (approximately one cubic yard) called "super sacks" are used to hold the moly concentrate. Ms. Heston stated that the super sacks are reused several times before they have to be disposed. She stated that when they are disposed, it is with the general trash.

Mr. Aycock and I asked if a hazardous waste determination has been made of the spent super sacks. Ms. Heston stated that the spent super sacks have not been tested. She stated that Climax has determined that the super sacks are exempt due to the RCRA Bevill exemption. Mr. Aycock and I discussed this issue and determined that the super sacks were not included in the 20 waste streams that fall under the RCRA Bevill exemption. Mr. Aycock and I stated that failure to make a hazardous waste determination is a violation of 40 CFR 262.11 (**#4 on the NOV**). Ms. Heston could not provide a generation rate for the spent super sacks.

H. Used Oil

Used oil is generated from vehicle and equipment maintenance and from the molysulfide process. The used oil from the molysulfide process is stored in an above ground storage tank, see **photo 4**. The used oil generated from vehicle and equipment maintenance is stored in 55-gallon containers, see **photo 5**. Ms. Heston stated that the used oil is picked up by Lenz Oil Service, Peoria, IL (attachment 9). She stated the used oil is used in fuel blending.

A review of the used oil invoices indicate that over the last three years, there has been a total of 13 used oil pick ups. An average of approximately 2,300 gallons is collected with each pick up.

I. Spent Oil Filters

Ms. Heston stated that spent oil filters are generated from vehicle maintenance. She stated that the filters are drained for at least 24 hours into a 55-gallon used oil storage container, **see photo 5**. Ms. Heston stated that after the filters are drained, they are crushed and then disposed with the general trash. Ms. Heston could not provided a generation rate for the spent oil filters.

J. General Trash

The general trash consists of floor sweepings, restroom and employee food wastes, empty containers, spent super sacks, spent oil filters, spent bead blast glass beads, etc. The general trash is picked up daily by Waste Management and disposed at the Great River Regional Waste Authority Sanitary Landfill.

Climax recycles mixed paper, corrugated cardboard, wood, and scrap metal with local recyclers.

2. RCRA Status

The information contained on Climax's latest "Handler Information Report" indicates that they are operating as a Conditionally Exempt Small Quantity Generator (CESQG) of D001, D006, D008, and D009 characteristic and F003 and U228 listed hazardous waste. From the information provided by the facility representatives, it appears the Climax is currently operating as a generator of used oil and a CESQG of D001 and D008 characteristic and F003 and F005 and U listed hazardous waste.

3. Global Positioning System (GPS) Reading

Prior to leaving the facility, a GPS reading was taken in front of the guard shack, near the entrance to the site, **see photos 6 and 7**. Attached is the "GPS Field Sheet for Magellan Pro Mark X" for the aforementioned GPS reading (attachment 10).

SAMPLING

1. Purpose and Objective

The purpose and objective of this sampling activity is discussed in the Quality Action Project Plan (QAPP), (attachment 11).

2. Samples Collected

The samples collected are listed below:

- A. Sample #1694-1; gypsum sludge collected from the sludge drying bag located next to the process wastewater treatment pond, **see photo 8.**
- B. Sample #1694-1FD; field duplicate of sample #1694-1.
- C. Sample #1694-3; small granular material from roaster clean out. This material was stored in wooden totes located in a large covered building next to the roaster building, **see photo 9.**

The field sheets and Chain of Custody Record are included as attachments 12 and 13. Ms. Heston requested and was provided with splits of all samples.

3. Sampling Procedures

The QAPP sampling procedures were followed, except as noted below:

The composite sample from the gypsum sludge was collected by using an approximate 1 ½" diameter PVC tube. The PVC tube was inserted into the sides of the drying bag. The PVC tube was inserted approximately half the distance into the drying bag. The sludge was removed from the tube into a 5-gallon pail. The sludge was mixed with a stainless steel spoon and placed into 8 oz. jars.

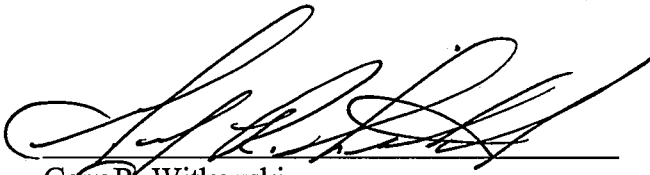
4. Analytical Results

The analytical results of the composite roaster clean out sample #1694-3 exceeded the regulated limits for arsenic which is listed in 40 CFR 261.24 Table 1 (attachment 14). The regulated limit for arsenic is 5.0 mg/l. The analytical results for arsenic in sample #1694-3 was 9.5 mg/l.

The analytical results for the remaining samples indicate they did not exceed the regulatory limits listed in 40 CFR 261.24 Table 1.

5. Summary

The analytical results for the roaster clean out material indicated that it is hazardous for arsenic. Ms. Heston stated that the roaster is cleaned out approximately once per year. She stated that all of the material that is removed during the clean out is fed back into the roaster when it starts up again. Ms. Heston stated that roaster clean out material is not a waste.



Gary R. Witkowski
Environmental Engineer

Date: 9-15-03

Attachments:

1. Region VII Multimedia Screening Checklist (1 page, both sides)
2. Confidentiality Notice (1 page)
3. Receipt For Documents and Samples (1 page)
4. NOV (1 page)
5. Manifest Dated 6/16/03 (1 page)
6. Inspection Checklist (1 page)
7. TCLP Analysis Results (1 page)
8. Certificate Of Recycling (1 page)
9. Used Oil Invoice (1 page)
10. GPS Field Sheet For Magellan Pro Mark X (1 page)
11. Quality Action Project Plan (21 pages)
12. Field Sheets (3 pages)
13. Chain Of Custody Record (1 page)
14. Analytical Results (5 pages)

Photographs (3 pages/9 photos)

REGION VII MULTIMEDIA SCREENING CHECKLIST

Facility Name: GRANITE MOULDING COMPANY
Facility Ownership: same
Street: 2578 Hwy 21
City: Fort Madison State: IA Zip: 52627
Phone: 442-2324 Facility Contact: SHIRLEY HARTON
Number of Employees: 110 Work Hours/Shifts: 24/7
Facility activity and major process description: MOLYBDENUM EXTRACTION & SULFURIC ACID PRODUCTION

Inspector: TARY WITKOWSKI
Primary Media: RCRA
Inspector Phone Ext.: 224-4029
Date: 6-24-03
SIC code: 3339 & 2819

(Check all that apply): Painting/Coating (Water-based ☐, Solvent-based ☐); Printing ☐; Reacting ☒; Formulating ☒; Distilling ☐;
Parts Washers/Degreasing (Water-based ☒, Halogenated-based ☐, Non-halogenated-based ☐); Combustion (boiler, furnaces, oxidizers) ☒;
Electroplating (Chrome ☐, Other ☐); Electro-less plating (Type ☐)

ENVIRONMENTAL JUSTICE (Note: Forward to EJ if a concern is identified during your inspection or in one of the areas below)

1. Is the facility located in a low income area (e.g., with many abandoned and dilapidated properties)? No ☒ (stop) Yes ☐
If yes, is facility less than 1000 feet from nearest routinely occupied property (house, school, etc.)? No ☐ (stop) Yes ☒ → Forward to EJ

TOXIC SUBSTANCES CONTROL ACT (TSCA) EMERGENCY PLANNING & COMMUNITY RIGHT TO KNOW ACT (EPCRA)

1. Does facility use more than 200 gallons or 1,500 pounds per month of the following (check all that apply): Acids ☒, Bases ☒, Anhydrous Ammonia ☒, Chlorine ☐, Chlorinated Solvents ☐, Solvent-Based Paints ☐, or Solvents ☐? No ☐ (stop) Yes ☒

If yes, have Toxic Chemical Release Forms (Form R) been submitted to EPA or State? Yes ☒ (stop) No ☐ → Forward to TSCA

2. Does facility store more than 100 gallons or 1,000 pounds of the following (check all that apply): Acids ☒, Bases ☒, Bulk Chemicals ☐, Anhydrous Ammonia ☒, Chlorine ☐, Chlorinated Solvents ☐, Fuels ☒, Gases ☐, Solvent-Based Paints ☐, Solvents ☐? No ☐ (stop) Yes ☒

If yes, have Hazardous Chemical Inventory Forms (Tier II) been submitted to local and state governments (Emergency Planning Committees or State Emergency Response Commission)? Yes ☒ No ☐ → Forward to EPCRA

If yes, have Risk Management Plans been submitted to EPA under Section 112r of the CAA? Yes ☒ No ☐ → Forward to EPCRA

3. Does the facility have any equipment that contains PCB's at concentrations >500 ppm? No ☒ (stop) Yes ☐

If yes, is equipment leaking (including wet or weeping equipment)? No ☒ (stop) Yes ☐ → Forward to TSCA (Get Photo)

CLEAN WATER ACT (CWA) - National Pollution Discharge Elimination System (NPDES), Industrial Pretreatment, Storm Water, & Wetlands

1. Does the facility discharge any wastewater to storm sewers, surface water, or the land? No ☐ (stop) Yes ☒

If yes, are all wastewater discharges permitted? Yes ☒ No ☐ → Forward to CWA

2. Does the facility have process wastewaters that are discharged to a city POTW (Publicly Owned Treatment Works)? No ☒ (stop) Yes ☐

If yes, are the discharges permitted by: State? ☐, City? ☐ - If yes, Stop here. No ☐ → Forward to CWA

If yes, does the city have a state or EPA approved pretreatment program? Yes ☐ No or Don't Know ☐ → Forward to CWA

3. During rainfall events, can storm water carry pollutants from manufacturing, processing, storage, disposal, shipping and receiving areas, or from construction sites >5 acres, to storm sewers or surface water? No ☐ (stop) Yes ☒

If yes, does the facility have an NPDES permit for these storm water discharges? Yes ☒ No ☐ → Forward to CWA

4. Did you see any wastewater discharges not identified by the facility? No ☒ (stop) Yes ☐ - Identify location, time, appearance of discharge:
(Get Photo) → Forward to CWA

5. Does the facility have any wetland areas (e.g. streams, ponds, or temporarily wet areas)? No ☐ (stop) Yes ☒

If yes, have any wetland areas that have been dredged or filled, channelized, dammed, or had gravel removed from within the last 5 years?
No ☒ (stop) Yes ☐ - Identify location and timeframe (Get Photo) → FWD to Wetlands

SAFE DRINKING WATER ACT (SDWA) - Underground Injection Control (UIC) & Public Water System (PWS)

1. Does facility discharge any liquids to the subsurface (septic systems, disposal wells, cesspools, etc.)? No ☒ (stop) Yes ☐ → Forward to UIC
If yes, do these liquid wastes consist of sanitary wastewater only? Yes ☐ No ☐
2. Does facility provide drinking water to 25 people or more from its own source (private well, pond, etc.)? No ☐ (stop) Yes ☒ → Forward to PWS
If yes, does the facility test or monitor its drinking water in order to comply with state regulations? Yes ☒ No ☐

CLEAN AIR ACT (CAA) and CFCs

1. Do you see any dense, non-steam, smoke or dust emissions leaving the facility property? No ☒ Yes ☐ → Forward to CAA
Source _____ (Get Photo)
2. Does the facility have any new air pollution emitting equipment that was constructed or installed in the past 5 years? No ☐ (stop) Yes ☒
If yes, is equipment permitted? Yes ☐ No ☐ → Forward to CAA Describe: VOC STACK INSTALLED
3. Does the facility have any cooling units that contain >50 lbs of refrigerant? No ☐ (stop) Yes ☒ → Forward to CFC
If yes, are these units: Self-serviced? ☐ Contract Serviced? ☒ Service Company: Refriger
4. Does the facility service motor vehicle air conditioning systems? No ☒ (stop) Yes ☐ → Forward to CFC

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) and UNDERGROUND STORAGE TANKS (UST)

1. Does the facility generate more than 30-gallons (220 lbs./100kg) of hazardous waste per month or at any one time? No ☐ (stop) Yes ☐
If yes, does facility have an EPA Hazardous Waste Identification Number? Yes ☐ (stop) No ☐ → Forward to RCRA
2. Is hazardous waste treated ☐, burned ☐, land filled ☐, put in surface impoundments ☐ or waste piles ☐? No ☐ (stop) Yes ☐
If yes, is the facility permitted for above described activity? Yes ☐ No ☐ → Forward to RCRA
3. Did you see or does the facility have any large quantities of materials that the facility claims to be non-hazardous waste material (>10 drums, roll-offs, waste piles, etc. - exclude clean office trash, cardboard, & packaging type wastes)? No ☐ (stop) Yes ☐

Material Claimed To Be Non-Hazardous

How does the facility know these wastes are non-hazardous?

Gypsum sludge

- Testing, industry or manuf. info., MSDS, etc. ☒ None available ☐ → Forward to RCRA
- Testing, industry or manuf. info., MSDS, etc. ☐ None available ☐ → Forward to RCRA
- Testing, industry or manuf. info., MSDS, etc. ☐ None available ☐ → Forward to RCRA
- Testing, industry or manuf. info., MSDS, etc. ☐ None available ☐ → Forward to RCRA
- Testing, industry or manuf. info., MSDS, etc. ☐ None available ☐ → Forward to RCRA

4. Did you see any leaking hazardous waste containers, drums, or tanks? No ☒ Yes ☐ → Forward to RCRA
Describe: _____ (Get Photo)
5. Did you see any signs of spills or releases (e.g., dead or stressed vegetation, stains, discoloration)? No ☒ Yes ☐ → Forward to RCRA
Describe: _____ (Get Photo)
6. Did you see any chemical or waste handling practices that concern you (access to children/public)? No ☒ Yes ☐ → Forward to RCRA
Describe: _____ (Get Photo)
7. Does the facility have any past or present underground petroleum product or hazardous material tanks? No ☒ Yes ☐ → Forward to UST
8. Does the facility have any underground fuel tanks for emergency generators? No ☒ Yes ☐ → Forward to UST

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC)

1. Does the facility have any aboveground oil tanks (petroleum, synthetic, animal, fish, vegetable), with an aggregate volume >1320 gallons?
No ☐ (stop) Yes ☒ Does the facility have a certified SPCC Plan? Yes ☒ No ☐ → Forward to SPCC
- If yes, are there secondary containment systems for the tanks? Yes ☒ No ☐ → Forward to SPCC
- If yes, are any tanks leaking where oil could reach waters of the State or U.S.? No ☒ Yes ☐ (Get Photo) → Forward to SPCC

* PLEASE TAKE PHOTOS TO DOCUMENT POTENTIAL PROBLEMS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CONFIDENTIALITY NOTICE

Facility Name CLIMAX MOLYBDENUM COMPANY	
Facility Address 2598 HWY 61 Fort Madison 52627	
Inspector (print) GARY R. WITKOVSKI	
U.S. EPA, Region VII, 901 N. 5th St., Kansas City, KS 66101	Date 6-24-03

Fed Bldg, 210 Walnut St, rm473, Des Moines, IA 50309-2109

The United States Environmental Protection Agency (EPA) is obligated, under the Freedom of Information Act, to release information collected during inspections to persons who submit requests for that information. The Freedom of Information Act does, however, have provisions that allow EPA to withhold certain confidential business information from public disclosure. To claim protection for information gathered during this inspection you must request that the information be held CONFIDENTIAL and substantiate your claim in writing by demonstrating that the information meets the requirements in 40 CFR 2, Subpart B. The following criteria in Subpart B must be met:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. No statute specifically requires disclosure of the information.
3. Disclosure of the information would cause substantial harm to your company's competitive position.

Information that you claim confidential will be held as such pending a determination of applicability by EPA.

I have received this Notice and <u>DO NOT</u> want to make a claim of confidentiality at this time.	
Facility Representative Provided Notice (print) Shelly Heston	Signature/Date Shelly Heston 6/24/03

I have received this Notice and <u>DO</u> want to make a claim of confidentiality.	
Facility Representative Provided Notice (print)	Signature/Date

Information for which confidential treatment is requested:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RECEIPT FOR DOCUMENTS AND SAMPLES

Facility Name	CLIMAX MOLYBDENUM COMPANY
Facility Address	2598 HWY 61 Fort Madison, IA 52627

Documents Collected? YES ☒ (list below) NO ☐

Samples Collected? YES ☒ (list below) NO ☐ Split Samples: YES ☐ NO ☐

Documents/Samples were: 1) Received no charge ☒ 2) Borrowed ☐ 3) Purchased ☐

Amount Paid: \$ Method: Cash ☐ Voucher ☐ To Be Billed ☐

The documents and samples described below were collected in connection with the administration and enforcement of the applicable statute under which the information is obtained.

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

- 1. SPENT ACETONE INSPECTION LOG (1 PAGE)
- 2. TCLP ANALYSIS (1 PAGE)
- 3. CERTIFICATE OF RECEIPT (1 PAGE)
- 4. MANIFEST DATED 6-16-03 (1 PAGE)
- 5. USED OIL MANIFEST (1 PAGE)
- 2 GYPSUM POND SLUDGE SAMPLES (2 BOD JARS)
- 2 ROASTER CLEAN OUT WASTE (1 BOD JAR)

Facility Representative (print)	Signature/Date
Shelly Heston	Shelly Heston 6/24/03
Inspector (print)	Signature/Date
GARY R. WITKOVSKI	[Signature] 6-24-03
U.S. EPA, Region VII, 901 N. 5th Street, Kansas City, KS 66101	

(rev:1/20/93) Fed Bldg, 210 Walnut St, Rm473, Des Moines, IA 50309-2109

Notice of Violation Pursuant to Requirements
of the Resource Conservation and Recovery Act (RCRA)

TO: Facility Name: CLIMAX MOLYBDENUM COMPANY
Address: 2598 HWY 61
Fort Madison, IA 52627
EPA ID Number: IAD000222653 Date: 6-24-03

This notice is provided to call your attention to the following areas of noncompliance with state and federal regulations. This notice does not constitute a compliance order (Administrative Civil Complaint) pursuant to Section 3008 of RCRA and may not be a complete listing of all violations resulting from the the inspection.

<u>Citation</u>	<u>Description of Violation</u>
<u>1) 40 CFR 273.13(d)(1)</u>	<u>UNIVERSAL WASTE CONTAINERS NOT</u> <u>CAUSED</u>
<u>2) 40 CFR 273.14(e)</u>	<u>UNIVERSAL WASTE CONTAINERS NOT LABELED</u>
<u>3) 40 CFR 273.15(e)</u>	<u>UNIVERSAL WASTE NOT DATED</u>
<u>4) 40 CFR 273.11</u>	<u>FAILURE TO MAKE HAZARDOUS WASTE</u> <u>DETERMINATION ON WASTE SUPPLY</u> <u>SACKS</u>

You are requested to submit a written response within **14 calendar days** of receipt of this notice. Your response should include a description of all corrective actions taken and/or a schedule for completing the necessary corrective actions. The response should be submitted to:

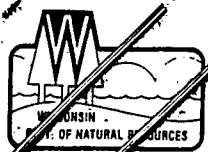
U. S. Environmental Protection Agency, Region VII
Federal Building
210 Walnut Street, Room 473
Des Moines, IA 50309-2109
ATTN: GARY R. WITKOVSKI

If you have any questions about this Notice or wish to discuss your response, you may call me at
(515) 284-4029, or JIM AYACOCK (Compliance Officer) at
(913) 551-7887.

This Notice prepared by GARY R. WITKOVSKI Date: 6-24-03

The undersigned person acknowledges that he/she has received a copy of this Notice and has read same.

Printed Name: Shelly Heston Date: 6/24/03
Signature: Shelly Heston
Title: Manager Environmental Affairs



STATE OF WISCONSIN

Chapter 291, Wis. Stats.

Form 4400-66P

Rev. 1-99

ALL COPIES MUST BE LEGIBLE,
PLEASE TYPE

State of Wisconsin
Department of Natural Resources
Bureau of Waste Management
Box 8094
Madison, WI 53708

FOR DNR USE ONLY

Form designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA ID No.

LA D 0 0 0 2 2 2 6 5 3

Manifest
Document No.

0 1 5 1 3 1 1 7

2. Page 1

of 1

Information in the shaded areas
is not required by Federal law.

Site Location If Different

A. State Manifest Document Number

WIK 105317

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone (618) 254-2514

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

(414) 760-9175

3. Generator's Name and Mailing Address

Climax Molybdenum
2598 Hwy 61

4. Generator's Phone 319-463-2224 Ft. Madison, IA 52627

5. Transporter 1 Company Name

Schiber Truck Company, Inc.

7. Transporter 2 Company Name

9. Designated Facility Name and Site Address

Badger Disposal of WI., Inc.
5611 W. Hemlock Street
Milwaukee, WI 53223

10. US EPA ID Number

W I D 9 8 8 5 8 0 0 5 6

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

RQ WASTE Paint related material,, 3, UN1263, PG-II

RQ WASTE Acetone, (D001, F003), 3, UN1090, PG-II

c.

d.

12. Containers
No. Type

0 1 0 1 7 M

0 1 0 1 7 M

13. Total
Quantity

4 1 9

3 1 9

14. Unit
Wt/Vol

G

G

I.
Waste No.

0 0 1

0 0 1

J. Additional Descriptions for Materials Listed Above

A: 3155-5, 20031013, Residue fr Spray cans (ERG#128)

B: 3155-0; 19991164; Spent Acetone; (ERG#127)

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information:

Bill to: HEI Consultants, Inc., PO Box 1472, Keokuk, IA 52632
24 Hour emergency # (800) 833-3878

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title

Joseph L. Bartholomew

Environmental
Technician

Signature

Joseph L. Bartholomew

Date

Month Day Year
06/16/2003

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title

LARRY A. GRIMM

Signature

Larry A. Grimm

Date

Month Day Year
06/16/2003

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title

Signature

Date

Month Day Year

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title

Signature

Date

Month Day Year

Inspection Checklist: Hazardous Waste Container Storage Area

Solvent Storage Area

Date June 16, 2003

Inspector J. Bartholomew

30 gal
Drum
Picked up
New Drum
Started

	Yes	No
Are containers in good condition?		
Is the area free from evidence of leaks and spills?		
Are all containers that contain liquids securely closed?		
Are labels on all containers readable?		
Are the floor and containment free from cracks or other deficiencies?		
Is the communication device nearby and functioning?		
Are notification procedures posted nearby?		

Date June 23, 2003

Inspector J. Bartholomew

	Yes	No
Are containers in good condition?		
Is the area free from evidence of leaks and spills?		
Are all containers that contain liquids securely closed?		
Are labels on all containers readable?		
Are the floor and containment free from cracks or other deficiencies?		
Is the communication device nearby and functioning?		
Are notification procedures posted nearby?		

Date _____

Inspector _____

	Yes	No
Are containers in good condition?		
Is the area free from evidence of leaks and spills?		
Are all containers that contain liquids securely closed?		
Are labels on all containers readable?		
Are the floor and containment free from cracks or other deficiencies?		
Is the communication device nearby and functioning?		
Are notification procedures posted nearby?		

Date _____

Inspector _____

	Yes	No
Are containers in good condition?		
Is the area free from evidence of leaks and spills?		
Are all containers that contain liquids securely closed?		
Are labels on all containers readable?		
Are the floor and containment free from cracks or other deficiencies?		
Is the communication device nearby and functioning?		
Are notification procedures posted nearby?		

TCLP Analysis

GB 0303114

glass Beads USED

≈ 6 months used

Date: 4-8-03
4-9-03

Technician: J. Bartholomew

IV. Final Test Results

	Parameter (mg/l)	Test Results	Hazardous Limits
4-8-03	Arsenic	< 0.007	5.0
4-9-03	Barium	< 10	100.0
4-9-03	Cadmium	< 0.1	1.0
4-9-03	Chromium	< 0.5	5.0
4-9-03	Lead	< 0.5	5.0
	Mercury UHL	< .0002	0.2
4-8-03	Selenium	0.011	1.0
	Silver UHL	< .01	5.0
4-9-03	Mo	2.0	NA

Classification

Hazardous

Nonhazardous

CERTIFICATE OF RECYCLING

A-TEC Recycling Inc. hereby certifies that the following described materials were recycled in accordance with all applicable Federal, State and County Regulations on the date as indicated.

Processing

Date: 22-May-03

Receiving

Number: 030512-16869

Items Received and Recycled

Quantity	Description
9.7	Batteries - Alkaline (lbs)
267.5	Computers - Other Components (lbs)
19	Ballasts - non PCB
147	Fluorescent 4' and Under
30.2	Batteries - Lead Acid (lbs)
13	Non-PCB Capacitors
249.8	Computer (CRT) Monitors (lbs)
51	Fluorescent Greater than 4'

Certificate issued to:

CLIMAX MOLYBDENUM COMPANY
ATTN: ACCTS PAYABLE
PO BOX 13388
PHOENIX, AZ 85002--3388

Generator:

CLIMAX MOLYBDENUM COMPANY
2598 HWY 61
FORT MADISON, IA 52627



BY *Diana Shera*

DATE May 22, 2003

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **7007451**

2. Page 1 of

3. Generator's Name and Mailing Address

CLIMAX MOLYBDENUM CO
2598 HWY 61
FT MADISON IA 52627

4. Generator's Phone (319-463-2224)

6. US EPA ID Number

A. State Transporter's ID

4 2 9 2

B. Transporter's Phone

5. Transporter 1 Company Name
OIL WASTE SERVICES, INC

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

7. Transporter 2 Company Name

10. US EPA ID Number

E. State Facility's ID

1 4 3 0 6 5 0 0 1 5

F. Facility's Phone

319-676-0211

9. Designated Facility Name and Site Address

LENZ OIL SERVICE INC
3001 SW WASHINGTON ST
PEORIA IL 61602-1968

11. WASTE DESCRIPTION

12. Containers

No.

Type

13. Total Quantity

14. Unit Wt./Vol.

a. NON HAZARDOUS USED OIL

001

TT

1200

6 9 3 1 6 7 0

b.

c.

d.

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Date

Printed/Typed Name

Shelly Heston

Signature

Shelly Heston

Month Day Year

5/21/03

17. Transporter 1 Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

William E. Hail

Signature

William E. Hail

Month Day Year

5/21/03

18. Transporter 2 Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Date

Printed/Typed Name

Beth Richards

Signature

Beth Richards

Month Day Year

5/21/03

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY



GPS FIELD SHEET for Magellan Pro Mark X

Facility Name: Climax Molybdenum Company

EPA ID No: IAD000222653

Address: 2598 HWY 61 County: Lee

City: Fort Madison State: IA Zip: 52627

Collecting Program (Division/Branch): ENSV/ARCM Collector GARY R. WITKOVSKI

Project (EJ, Neosho,...) : RCRA/CEI

Date Collected: 6-24-03 Time observation began: 202423 Ended: 202923

PDOP: 2.5

GPS Receiver No. (EPA Tag No.): 972110

Filename stored in GPS unit : NEB11751.CAR

Detailed description of point (plant entrance, parking lot, land parcel, well....) GPS taken at the
main entrance in front of the site guard shack (3).

Verbal description of weather : Partly cloudy with a south wind of 5 - 10 mph and temp in the
low 90's.

Obstructions (buildings, electric lines.....): NO OBSTRUCTIONS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 N. 5TH STREET
KANSAS CITY, KANSAS 66101

REC'D

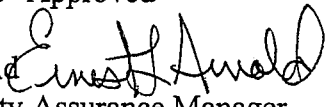
FEB 18 2000

RESP

FEB 18 2000

MEMORANDUM

SUBJECT: QAPP for RCRA Compliance Sampling at Mineral Processing Facilities,
QAO#2000-039-Approved

FROM: Ernest L. Arnold 
Regional Quality Assurance Manager

TO: Jim Aycock
ARTD/RESP

As requested, we reviewed the revised document, dated February 2000, for compliance with the *EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations*, EPA QA/R-5, October 1997.

The document is approved. The document was found to address key issues satisfactorily. If the procedures as outlined in the plan are followed, the data resulting from the collection activity should be usable.

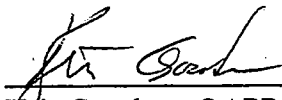
If you have any questions, please contact me at x7170 or Margie St. Germain at x7209.

RQAO Document Number: 2000-039



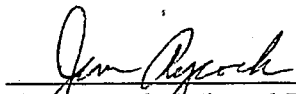
Quality Assurance Project Plan (QAPP)
for
Resource Conservation and Recovery Act (RCRA) Compliance Sampling
at
Mineral Processing Facilities

Prepared By
Kris Goschen and Jim Aycock
February 2000



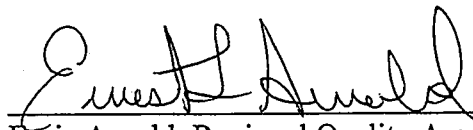
Kris Goschen, QAPP Co-Coordinator

2-16-00
Date



Jim Aycock, Mineral Processing Sector Coordinator,
QAPP Co-Coordinator, RCRA Enforcement and
State Programs Branch (RESP)

2/16/2000
Date



Ernie Arnold, Regional Quality Assurance Manager

2/18/00
Date

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Appendix A

Analytical Services/Supplies Request Form

Appendix B

Table 1 - Sample Summary Table

Table 2 - Analyte Table

Appendix C

Full Sampling Equipment and Supplies List

A. Project Management

A1. Distribution List

EPA Region VII (R7): Kris Goschen, Overall Project Manager and QAPP Coordinator
ARCM RCRA Inspectors
Jim Aycock, RESP/Air RCRA and Toxics Division (ARTD)
Lynn Slugantz, RESP Enforcement Team Leader*
Ernie Arnold, Regional Quality Assurance Manager
Andrea Jirka, RLAB Manager

A2. Project/Task Organization

The individuals directly involved with these sampling projects and their specific responsibilities are outlined below:

Kris Goschen - Responsible for the development of this QAPP and to serve as overall Project Manager who ensures uniform implementation of the QAPP at all facilities and as contact for questions. If needed, he is also responsible for the revision of this QAPP to accommodate changes needed to improve the effectiveness of this QAPP.

ARCM RCRA Inspectors - Will serve as project managers for these sampling projects. As project managers, they will direct, coordinate and implement the field activities. They will also implement, perform and coordinate sampling operations. In addition, the project manager will review, document and ensure that the sampling activity is conducted in accordance with this QAPP. The project manager will ensure QAPP implementation and document any deviations from this QAPP. The project manager will also participate in the sample collection process, with the additional assistance of one or more ARCM RCRA Inspectors and/or contractors.

Project Assistants - Will assist the project manager during the collection and documentation of samples. Each project assistant will also be familiar with this QAPP and all available site information, including the potential hazards at the site.

Jim Aycock - Responsible for the development and review of this QAPP to ensure that it meets the data needs of the Regional RCRA compliance program. Also responsible for providing available site specific information prior to each sampling project, and for informing the ARCM Program Manager of any changed project data needs.

* Individual will receive a copy of the QAPP for informational purposes only

Betty Berry, ARCM Program Manager - Responsible for the overall coordination and decisions for the sampling projects and for assigning project managers. Reviews and approves this QAPP and any subsequent revisions in terms of expanding or limiting the project scope and objective.

Ernie Arnold, Regional Quality Assurance Manager - Responsible for the review and approval of this QAPP and any subsequent revisions in terms of quality assurance aspects.

Andrea Jirka, RLAB Manager - Responsible for the coordination and scheduling of lab analyses, data review and data validation.

A3. Problem Definition/Background

During FY2000, EPA R7 will be conducting compliance evaluation inspections (CEIs) at approximately three (3) mineral processing facilities located in the Iowa and Missouri. These CEIs will include sampling as a component of the inspection. The target facilities are physically large and employ more than 20 persons. They have notified the EPA and/or the authorized state that they generate regulated quantities of hazardous waste.

In a December 1985 report to Congress on mining wastes (1985 Report to Congress: Wastes from the Extraction and Beneficiation of Metallic Ores, Phosphate Rock, Asbestos, Overburden from Uranium Mining, and Oil Shale), EPA found that some mining wastes exhibit hazardous characteristics, that waste management practices have caused environmental damage, and that the range of risk from mining waste was broad. In 1980 EPA excluded the regulation of mineral extraction, beneficiation, and mineral processing wastes from RCRA Subtitle C regulations because of their "high-volume, low-hazard" characteristics. This exclusion was known as the Bevill Amendment and was quite broad in scope. A subsequent court-ordered reinterpretation of the high-volume, low-hazard nature of these wastes resulted in codifying specific definitions for non-regulated beneficiation activities and significantly narrowed the scope of the amendment for waste generated during mineral processing operations. Only twenty (20) specific mineral processing wastes were identified as not being subject to regulation. As related to this project, slag from primary lead processing is the only excluded waste stream of the twenty identified.

Beneficiation activities include the mining and concentrating of ores and minerals that are essentially earthen like. Specifically, 40 CFR 261.4(b)(7), excludes the following beneficiation activities from regulation as hazardous waste. These beneficiation activities include: "crushing, grinding, washing, dissolution, crystallization, filtration, sorting, sizing, drying, sintering, pelletizing, briquetting, calcining, roasting in preparation for leaching (to produce a final or intermediate product that does not undergo further beneficiation or processing), gravity concentration, magnetic separation, electrostatic separation, flotation, ion exchange, solvent extraction, electrowinning, precipitation, amalgamation, and heap, dump, vat, tank, and in situ leaching."

Mineral processing, on the other hand, consists of operations that physically recover the pure minerals from the concentrates and generate waste streams that generally bear little or no resemblance to the materials that originally entered the process operation. These process operations most often destroy the physical structure of the mineral producing material as the pure mineral is being recovered. Except for the twenty specifically excluded mineral processing waste streams, all other mineral processing wastes are subject to RCRA regulation.

The purpose of these inspections are to evaluate the facilities' compliance with RCRA. In particular, EPA will be focusing on the validity of the facilities' claims that its mineral processing wastes are excluded under the Bevill amendment. It is also to validate the legitimacy of the facilities' claims that it is properly recycling and reclaiming waste material, including the substitution of waste material for raw material feedstocks. Since all mineral processing wastes are suspected to contain heavy metals, particularly lead, chrome, and arsenic, it is important to assure that the wastes are managed properly.

These inspections will be conducted at lead and molybdenum primary ore smelters and mineral processing facilities. Mineral processing operations likely to be encountered at these facilities includes crushers, grinders, and screening operations (to size the ore concentrates), then sintering (a Bevill exempt process), smelting, drossing, and pyrometallurgical refining operations.

Wastes that are typically generated or managed at mineral processing facilities include:

- Emission control sludge (both dry and wet), sinter wastes, refractory bricks, slags, wastewater treatment sludges, and surface impoundment solids.
- Wastes generated from maintenance activities such as spent parts washer solvents, paint wastes, used oil, and scrap metal.
- Wastes received from off-site facilities to be reclaimed for their lead content.
- Waste personnel protective equipment, packing material, floor sweepings, baghouse bags, etc.

A variety of waste management practices will also be encountered, including storage (containers and waste piles), recycling and both on-site and off-site disposal. Areas of spillage are also likely to be found during these inspections. Wastewaters are generally managed through Clean Water Act regulated systems (pretreatment to Publically Owned Treatment Works (POTW's) or National Pollution Discharge Elimination Systems (NPDES).

Each individual facility inspection will be considered an independent activity. At the conclusion of each inspection/sampling activity, a CEI report summarizing the findings and observations will be written. Other types of mineral processing facilities may be inspected and this QAPP is designed to be used for those inspections. These additional activities will be treated as independent activities on a site-by-site basis.

A4. Project/Task Description

Samples will be collected of waste materials that, based on inspectors judgement and information acquired during the inspection, are:

1. Not excluded under the Bevill amendment and are not being properly managed.
2. Not properly recycled or reclaimed, i.e., the facility appears to have inadequate justification for their recycling or reclamation activities.
3. Not properly identified by the facility and which are likely to be hazardous wastes.
4. Spills of known or potentially hazardous wastes onto the ground (soil samples).

We anticipate that samples of these wastes will be classified as "solid" matrix wastes (if not, changes will be recorded on the field notes and field sheets). These samples will be analyzed for Total Metals (RCRA Toxicity Characteristic Leachate Procedure (TCLP) listed metals only) and RCRA TCLP Metals (if one or more of the Total Metals concentrations exceed the regulatory threshold by a factor of 20). Duplicate samples will be collected for each of the four types of samples listed in Appendix B, Table 1 and analyzed for total metals only.

Any waste samples exceeding the regulatory thresholds will be classified as hazardous waste.

Soil sampling will be conducted to determine if any hazardous constituents and/or waste have been released on-site, and to determine if the soil itself has been contaminated to such a level that it requires management as a hazardous waste. A background soil sample will be collected from a nearby unaffected area (such as a non-adjacent public park) and analyzed for Total Metals (RCRA TCLP metals only).

Waste samples will not be collected for:

1. Those wastes which appear to be properly classified and managed as hazardous by the facility.
2. Wastewaters generated by the facility.
3. Wastes generated from maintenance activities.
4. Liquid wastes.

These sampling projects are scheduled to begin during the third quarter of FY2000, and will be conducted throughout the remainder of the fiscal year. Appendix A contains the Analytical Service Request and Sampling Supplies Request form that will be completed and submitted to the laboratory prior to each sampling event. Samples will be delivered to the EPA laboratory upon return from the sampling project (more than one sampling project may be conducted during a trip).

A5. Quality Objectives and Criteria for Measurement Data

The project data quality objective is to provide valid data of known and acceptable quality for the waste streams and the soils. Waste sample data will be compared to the regulatory threshold for TCLP Metals. Any waste that exceeds this level is classified as a hazardous waste. Soil sample data will be compared against the background sample data. A release will be deemed to have occurred if the soil sample exceeds background levels by more than a factor of two (2), assuming reasonable background levels. A background sample is reasonable if it does not exceed the soil action levels established by EPA Region III.

A sample summary table which includes the location and type of each sample, sample matrix, estimated number of samples, container type, preservation method, constituents of interest, analytical method, and level of interest is included as Appendix B, Table 1.

The goals for analytical precision and accuracy are described in the R7 Environmental Services Division (ENSV) SOPs. If a contract laboratory is utilized, the contracted laboratory shall meet or exceed the goals for analytical precision and accuracy described in R7 ENSV SOP's and the analytical methods. The acceptance limit for the precision assessed via field duplicate samples will be less than or equal to 50 percent relative percent difference.

There will be no field measurements taken during this sampling activity. In addition, there will be no trip blanks or rinsate blanks collected as only heavy metals will be analyzed and dedicated sampling equipment will be used. An equipment list is included in this QAPP as Attachment C.

Representativeness will not be an issue during the waste sampling as worst-case conditions are being determined. These worst-case conditions include being that portions of the waste stream sampled would be a hazardous waste. Therefore, samples will be collected from visually contaminated areas or areas most likely to contain the hazardous constituents of concern.

Representativeness will also not be an issue during the surface soil sampling as the data will be used to identify the presence and not the extent of the hazardous constituents of concern.

Comparability will be addressed by collecting, analyzing, and reporting the data utilizing standard EPA methods. Analytical results for TCLP should be in mg/L and the results for totals in mg/Kg. Comparability will also be addressed by using EPA standardized methods.

The completeness of the project will be assessed by comparing the number of sample results to the number of samples submitted for analysis. The completeness goal is 100%.

A6. Special Training Requirements/Certification

Prior to conducting this sampling activity, each inspector will have completed at a minimum

the following training:

- a. Hazardous Waste Operations (Hazwoper) (40 hours).
- b. RCRA Program Training.
 1. Inspector Orientation (10 hours).
 2. Regulatory Framework (40 hours).
 3. RCRA Compliance Evaluation Inspections; 100 hours (30 hours must be on-the-job training with an experienced inspector), and at least two of these inspections must be at treatment, storage and disposal facilities.
- c. Participation in at least 2 sampling activities conducted by an experienced inspector.
- d. Annual 8 hour safety Refresher Training.
- e. CPR certification.

In addition, each inspector will be provided with (or provided access to) the following reference materials:

- a. EPA R7 Standard Operating Procedures (SOPs).
- b. EPA inspection guidance manuals.
- c. Current edition of 40 CFR (260-299).
- d. State Hazardous Waste Regulations.
- e. Hazardous materials reference literature.
- f. SW-846.
- g. Historical collection of rule changes (from 1980).
- h. EPA Standard Safety Operating Guides.

Each inspector will participate in a medical monitoring program. This monitoring will occur prior to conducting sampling activities, and on an annual basis thereafter. Inclusion in a respiratory protection program will be a part of this medical monitoring. All contractors will have equivalent safety and sampling training.

A7. Documentation and Records

This information is covered by the current versions of R7 SOPs 2410.1 "LABO Analytical Data Management Procedures" and 2410.10 "Analytical Data Submission Packages." The required field sampling information will be recorded on the field sheets generated for the sampling activity by the LIMS Lite system.

B. Measurement/Data Acquisition

B1. Sampling Process Design

- a. Health and Safety

The inspector must ensure that the sampling can be performed in accordance with accepted safety procedures. The inspector should refer to the Health and Safety section of the applicable sampling SOP for unit or method specific guidance and to EPA PB92-963414, "Standard Operating Safety Guides", for additional guidance. In the event that the inspector has any reservations as to the safety of the sampling operations, no sampling will occur under this plan.

The primary safety hazards during this sampling activity will be from physical hazards and possibly TCLP heavy metals (lead, chrome, arsenic, barium, silver, cadmium, selenium and mercury) dust. Safety information on these metals can be obtained from various safety publications, such as NIOSH and the TOMES Chemical Database. A safety survey will be conducted before any samples are collected. At the project leader's judgement, taking into account the weather, the surrounding conditions and the physical state of the waste streams, Level D is expected to be worn and possibly a respirator. Level D clothing consists of: Tyvek gear, safety shoes, hard hat, safety glasses and gloves. A dust mask or a full-face respirator with appropriate dust cartridges may be worn.

b. Samples

Based on the sampling criteria identified in Section A4, it is expected that samples will be collected of the following typical waste streams.

1) Emission Control Sludge (Dry and Wet) and Dust

It is expected that the sludge and dust will be collected in a small container (such as a cubic foot hopper or 55-gallon drum) at the point of generation. A composite sample will be collected as soon as possible after the sludge or dust has been emptied into the container. This sample will randomly be collected from the top portion of the container by compositing several aliquots* from the surface.

2) Refractory Brick

It is expected that refractory brick is collected in a container or in a waste pile at the furnace if any has been removed from the furnace. A composite sample consisting of several aliquots will randomly be collected from containers of refractory brick.

* Several aliquots - The number of aliquots to be composited will be between 5 and 20 depending on the nature of the sample material encountered in the field.

3) Surface Impoundment Solids

It is expected that solid waste removed from surface impoundments may be found at the site. A composite sample consisting of several aliquots will randomly be collected from containers or piles of this material.

4) Waste Stream Piles

A layout of the site is unknown. It is expected that a part of the site will be used to store piles of the various waste streams.

Samples will be collected from the distinctive waste piles in the waste pile storage area. If available, two distinctive piles of each waste will be selected for sampling. For each pile randomly selected, the sample will consist of one composite sample consisting of several aliquots from the area most likely to be hazardous based on visual observations or based on process information received by the facility representative during the inspection.

5) Off-Site Generated Wastes

Waste generated from off-site locations is expected to consist of personnel protective equipment, packing material, floor sweepings, and baghouse bags. The actual wastes that are encountered may vary. Separate composite samples will be collected from piles or containers of these materials by collecting several aliquots of the waste material.

6) Waste Spills

It is expected that some of the waste streams may be collected outside in containers setting on the ground. Therefore, some of the waste may spill on the ground during this collection process. These waste spills are expected to be no more than about a foot high. A composite sample consisting of several aliquots will be randomly collected from the spill in an area most likely to be hazardous based on visual observations.

7) Waste Spill Area Soil

A surface soil sample will be collected from the area directly underneath and along the edge of the spill area. For this project, surface soil is defined as the top 0-2 inches of soil. The soil sample will consist of one composite sample of several aliquots depending on size of the spill area.

8) Wastewater Treatment Plant Sludge

It is anticipated that wastewater treatment sludge is generated during clean out of any wastewater treatment tank or unit. Sludge can be collected in 55-gallon drums, roll-off containers or waste piles. If the sludge is collected in 55-gallon drums, a grab sample will be

collected from the drum. If the sludge is collected in roll-off containers or placed in a waste pile, samples will consist of one composite sample of several aliquots depending on size of the roll-off container or waste pile.

9) Background Soil

A surface soil background sample will be collected from an unaffected area on-site if such an area can be located. If an unaffected area cannot be located on-site, a background sample will be collected from an unaffected area off-site.

c. Waste Generated During Sampling

If any hazardous or potentially hazardous waste is generated from these sampling procedures, it will be left at the site, if possible or double bagged, labeled, and returned to EPA.

d. Additional Design Information

All of the samples are critical to the decision making process for determining whether or not a sample is hazardous waste. Except as noted in Sample Summary Table (Appendix B, Table 1), no other field or laboratory measurements or analysis is planned on being performed.

For this project, the inspector shall complete a more detailed process design on-site, prior to conducting the sampling operations. The more detail process design shall consist of noting sample locations on the site sketch, photographing the sample location, documenting the sampling method and sampling equipment.

The inspector will document any unusual site conditions or potential interferences.

The total number of samples expected to be collected and submitted for analysis under this plan are shown in Appendix B, Table 1.

B2. Sampling Method(s) Requirements

- a. Sampling - The project manager is responsible for deciding on and documenting any changes to this QAPP during sampling that result from unforeseen field conditions. Dedicated sampling equipment will be used for sample collection.

1) Containerized Waste

Samples of containerized wastes, e.g., emission control sludge and off-site generated wastes, will be collected in accordance with EPA SOP 2231.9A "Waste Sampling Procedures." The composite samples from the containers will be collected using dedicated stainless steel spoons. The composite samples will be homogenized in aluminum pie pans and then put into a

labeled 8 oz. glass sample container. If waste material is in large pieces, the larger pieces will be broken with a stainless steel spoon or put into a plastic bag and broken with a hammer, and then placed into the sample container.

2) Waste Piles/Spills

The waste pile/spill samples, e.g., refractory brick, surface impoundment solids, and wastewater treatment sludge, will be collected as discussed in Section B1 above in accordance with EPA SOP 2231.17A "Waste Sampling Procedures" (the section addressing the collection of waste pile samples). Dedicated stainless steel spoons will be used to collect the composite samples which will be homogenized in aluminum pie pans and then placed into the sample container.

3) Waste Contaminated Surface Soils

The surface soil samples will be collected as discussed in Section B1 above in accordance with R7 SOP 2231.12A "Soil Sampling" (the section addressing the collection of surface soil samples). Spoons or a shovel will be used to remove waste spill from the soil prior to sampling (if this is not possible, the sample will be collected at the edge of the spill). Dedicated stainless steel spoons will be used to collect the composite samples which will be homogenized in aluminum pie pans. A stainless steel spoon will be used to collect the soil aliquots for the composite sample which will be homogenized in aluminum pie pans and then placed into the sample container.

4) Duplicates

Duplicate samples identified in Appendix B, Table 1 will be collected as split samples, if possible. If not such as for the slag and brick, adjacent samples will be collected.

b. Additional Requirements

Sampling points will be identified in the field notes by their directional distance from landmarks that are likely to be preserved over time. The field observations will be recorded in a notebook and/or on the field sheets. Photographs of sampling locations will be taken.

The estimated number of samples expected to be collected include 20 waste samples, 10 soil samples, 5 off-site generated wastes, and 4 duplicates will be collected for an estimated total of 39 samples per site (see Appendix B, Table 1).

B3. Sample Handling and Custody Requirements

Sample containers, preservation, and holding times will be those found in EPA ENSV SOP 2130.4B, "Sample Container Selection, Preservation, and Holding Times."

Chain-of-custody and field documentation will be in accordance with EPA ENSV SOP 2130.2A, "Field Chain-of-Custody for Environmental Samples" and EPA ENSV SOP 2130.3B "Identification, Documentation, and Tracking of Samples," respectively. The LAST system which is mentioned in SOP 2130.3B, has been replaced by the LIMS Lite system. The principles between the two systems are the same and should be followed. The time of collection, location, sample section size, number of aliquots, and the sample depth will be recorded on field sheets produced by the EPA laboratory computer system.

B4. Analytical Methods Requirements

The samples will be analyzed by the EPA Laboratory in accordance with the methods and levels of interest listed in Appendix B, Table 2. The overall implementation of the quality assurance program by the Regional Laboratory is addressed in the EPA ENSV SOPs 1640.1, "Region 7 Laboratory Quality Assurance Project Plan" and 1610.1C, "Regional Laboratory Quality Control Policy". The standard laboratory turn around time of 30 days is adequate for this project.

If a contractor is hired to conduct the analysis, they will use the same criteria listed above.

B5. Quality Control Requirements

Duplicate samples will be collected as identified in Appendix B. No field blanks or trip blanks are planned for this project. Split samples will be offered to the facility representative and provided by EPA if requested.

Laboratory quality control elements, including spikes and blanks, will be performed in accordance with the above referenced analytical SOP and SOP 1610.1C.

B6. Instrument/Equipment Testing, Inspection, and Maintenance Requirements

No field equipment requiring testing, inspection, and maintenance will be used for this project. For the analytical instrumentation, the testing, inspection, and maintenance will be performed in accordance with the above referenced analytical SOP and manufacturer's recommendations.

B7. Instrument Calibration and Frequency

No field instruments requiring calibration will be used for this project. For the analytical instrumentation, the calibration will be performed in accordance with the above referenced analytical SOP and manufacturer's recommendations.

B8. Inspection/Acceptance Requirements for Supplies and Consumables

No special requirements are needed. Prior to conducting the sampling inspection, sample containers and sampling equipment should be inspected by the project manager to determine if they are ready for use i.e., not broken.

B9. Data Acquisition Requirements

No data will be used from other sources.

B10. Data Management

Data management will be in accordance with EPA ENSV SOPs 2120.2A, "Document Control" and 2410.1B "LABO Analytical Data Management Procedures."

C. Assessment/Oversight

C1. Assessments and Response Actions

No field assessment is planned for this activity due to the short time period of each project.

Assessments and response concerning the analytical aspect of the project are addressed in the SOPs 1610.1C and 1640.1A. The information covers examples of conditions indicating out-of-control situations, who is responsible for initiating the corrective actions, and what steps may be taken.

C2. Reports to Management

Once each project activity is complete and the resulting data obtained, the EPA project manager will prepare a final inspection report per RCRA SOP 2321.1B. The report will include a summary of the activities performed during the project and a discussion of the resulting sampling data (along with any statements about problems concerning data quality). The inspection report shall identify any results that indicate non-compliance with regulatory requirements, or that indicate potential release of regulated materials to the environment. The completed report and associated sampling data will be filed in the Regional Records Center. In addition, a copy will be sent to the RESP Compliance Officer assigned to the facility, the state, and the facility.

D. Data Validation and Usability

D1. Data Review, Validation, and Verification Requirements

The data will be peer reviewed by a qualified analyst and the lab Section Manager as

identified in R7 ENSV SOPs 1640.1A and 1610.1C. The EPA project manager will be responsible for overall validation and final approval of the data in accordance with project purpose and use of the data.

D2. Validation and Verification Methods

The data will be validated in accordance with R7 ENSV SOPs 1610.1C and 1640.1A. QC spot checks will be performed by the R7 laboratory following the frequency and criteria outlined in R7 ENSV SOPs 1640.1A and 1610.5A, "Quality Control Spot Checks of Regional Laboratory Data Packages."

The EPA project manager will perform the final review and approval of the data prior to it being entered into the LIMS system as valid. The EPA project manager will look at field duplicates to ensure they are acceptable, as defined in A5. The EPA project manager will also compare the sample descriptions with the field sheets for consistency and will ensure that any anomalies in the data are appropriately documented.

D3. Reconciliation with User Requirements

Once the data results are compiled, the EPA project manager will review the field duplicates to determine if they fall within the acceptance limits as defined in this QAPP. Completeness will also be evaluated to determine if the completeness goal for this project has been met. If data quality indicators do not meet the project's requirements as outlined in this QAPP, then the data may be discarded and re-sampling may occur. The EPA project manager will evaluate the cause of the failure (if possible) and make the decision to discard the data and re-sample. If the failure is tied to the analysis, calibration and maintenance techniques will be reassessed as identified by the appropriate lab personnel.

Appendix A

USEPA Region VII Analytical Services Request (ASR) Form

Please submit this form to the RLAB manager 30 days prior to sample delivery.

Activity No.: _____ Site ID: _____ OU: _____
 Site Name, City, & State: _____
 EPA Project Manager: _____
 EPA Branch: _____ Phone No.: _____
 Contractor: _____ Phone No.: _____
 Projected Sample Delivery Date: _____
 GPRA Goal/Objective & Subobjective: _____

No. of Samples	Sample Media	Group/Parameter Name	MGP Code

For assistance, contact the RLAB Customer Service Center, at (913)551-5295.

Special Requirements or Comments:

Are field sheets and tags needed? Yes-☐ No-☐

Hazards/Environmental Compliance:

Are any samples expected to contain:

>1 ppb dioxin - Yes-☐ No-☐

>1000 ppm toxic/hazardous chemicals - Yes-☐ No-☐

Are any samples known to have originated

from RCRA listed wastes? - Yes-☐ No-☐

QA Requirements:

Is there an approved QAPP?

Yes-☐ No-☐

 EPA Project Manager (Date)

Date Received: _____ Priority: _____ RLAB Approval: _____

Laboratory Assignment:

Scheduled Completion:

Distribution:

- ☐-Region VII _____ ☐-Routine: 30 days
- ☐-RESAT _____ ☐-Other: _____
- ☐-CLP _____
- ☐-RECAP _____
- ☐-Other _____

- EPA Project Manager
 - Laboratory Manager
 - ANOP Manager
 - CATS Manager
 - Data Coordinator
 - RSCC
 - QA Office
 - Warehouse Manager
 - RESAT (2 copies)
- ☐ Other: _____

1998/

Specification Of Special Analytical Requirements
(List any exceptions from routine)

Page ____ of ____

Activity No.: _____ Site Name: _____

USEPA Region VII Sampling Supplies Request (SSR) Form
Please submit this form to the RLAB 30 days before sample delivery.

Activity No.: _____ Site Name: _____

Contact Name: _____ Telephone No.: _____

Date Equipment to be Picked Up: _____

DESCRIPTION	NUMBER NEEDED	DESCRIPTION	NUMBER NEEDED
SAMPLE CONTAINERS *			
4-oz. (128 ml) Plastic Bottle		1 Quart Wide Mouth Glass Jar	
1-Liter Plastic Cubitainer		40-ml Glass Vials (Routine VOC- 2 ea in 1 cubie {1 cubie with charcoal thimble})	
1 Gallon Plastic Cubitainer			
2 ½ Gallon Plastic Cubitainer		40-ml Glass Vials (LDL VOC- 4 ea in 1 cubie {1 cubie with charcoal thimble})	
5 Gallon Plastic Cubitainer			
8-oz. Wide Mouth Glass Jar		1 Gallon Amber Glass Bottle	
SAMPLING SUPPLIES *			
Stainless Steel Canister for AMBIENT/SOIL GAS (circle one)		1-qt. Metal Paint Can (with 2 plastic bags, clips, vermiculite)	
Ice Chests with Large Plastic Bag Liners		Custody-Seal Tape (by piece)	
		Chain-of-Custody Forms	
Sampling Spoons		Fiber Tape (by roll)	
Aluminum Pans		Other:	
Deionized (DI) Water			
CHEMICAL PRESERVATIVES *		QUALITY CONTROL SAMPLES *	
HCl (1:1)		Trip Blanks for ROUTINE / LDL (circle one) VOC in water	
HNO ₃ (1:1)			
H ₂ SO ₄ (Concentrated)		Trip Blanks for ROUTINE / LDL (circle one) VOC in Soil	
NaOH (Pellets)			
Other:		Field Blanks - specify types:	
PERFORMANCE EVALUATION (PE) SAMPLES			
No. of PE Samples	Media	Target Analytes	Desired Concentration Range

* Return all unused items and preservative containers to ENSV.
(Revised September 1998)

Appendix B

TABLE 1 SAMPLE SUMMARY

Location and Type of Sample	Sample Matrix	Estimated Number of Samples	Container Type	Preservation Method	Constituents of Interest	Analytical Method (SW-846)	Levels of Interest
Waste Streams At Point of Generation	Emission Control Sludge and Dust, Surface Impoundment Solids, Floor Sweepings, Slag and Brick	10 plus one duplicate	8 oz. glass	Cool to 4°C	Total TCLP Metals and TCLP Metals (S92, S19)	6010 and 1311	MDL* and regulatory threshold
Waste Piles and/or Wastes anywhere at the facility including storage areas	Emission Control Sludge and Dust, Surface Impoundment Solids, Floor Sweepings, Slag and Brick	10 plus one duplicate	8 oz. glass	Cool to 4°C	Total TCLP Metals and TCLP Metals (S92, S19)	6010 and 1311	MDL and regulatory threshold
Waste Contaminated Surface Soil and Background Soils	Soil	10 plus one duplicate	8 oz. glass	Cool to 4°C	Total TCLP Metals and TCLP Metals (S92, S19)	6010 and 1311	MDL and regulatory threshold
Off-Site Generated Wastes	Spent PPE, Packing Material, Baghouse Bags	5 plus one duplicate	8 oz. glass	Cool to 4°C	Total TCLP Metals and TCLP Metals (S92, S19)	6010 and 1311	MDL and regulatory threshold

*MDL - Minimum Detection Limit

TABLE 2 - ANALYTE TABLE

Analyte	MDL (1)	Action Limit	Method	SOPs
Lead	0.028 mg/L		6010, 1311	EPA SOP 3122.2B
Chromium	0.0005 mg/L	0.1 mg/L		
Arsenic	0.035 mg/L	0.05 mg/L		
Barium	0.0001 mg/L	2 mg/L		
Silver	0.0047 mg/L			
Cadmium	0.0023 mg/L	0.005 mg/L		
Selenium	0.050 mg/L	0.05 mg/L		
Mercury	0.017 mg/L	0.002 mg/L		

(1) Values obtained from method 6010

Appendix C

EQUIPMENT LIST*

Stainless steel spoons - 40
Aluminum pans - 40
Sample containers (8 oz. Glass jars) - 80
Small plastic bags (to break brick in with hammer) - 5
Scissors
Auger
Duct tape - 1 roll
Strapping tape - 1 Roll
Custody seals - 4
Foam - enough to wrap jars
Chain-of-Custody forms (include plastic bag) - 1 form and 1 bag
Measuring tape (50 ft.)
Hammer
Stainless steel shovel
Water - 1 gallon
Large plastic bags - 3
Field sheets and tags
Waterproof marker
Camcorder and film/tape
Camera with film
Ice chests (ice if needed)
Safety equipment:
Tyvek gear
Protective gloves
Steel toe boots
Safety glasses
Hard hat
Boot covers
Respirator
Respirator cartridges (dust)
Large aluminum baking or roasting pans (10)

*Equipment listed is for each sampling event. A total of three separate sampling events are anticipated.

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 1694 Sample Number: 1 QC Code: ___ Matrix: Solid Tag ID: 1694-1-___

Project ID: AJA05
Project Desc: Climax Molybdenum Smelter site
City: Fort Madison
Program: RCRA Enforcement

Project Manager: Jim Aycock

State: Iowa

Location Desc: _____

Storet ID: _____

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date _____ Time(24 hr) _____

Latitude: _____

Sample Collection: Start: 6/24/03 13:50

Longitude: _____

End: 6/24/03 13:57

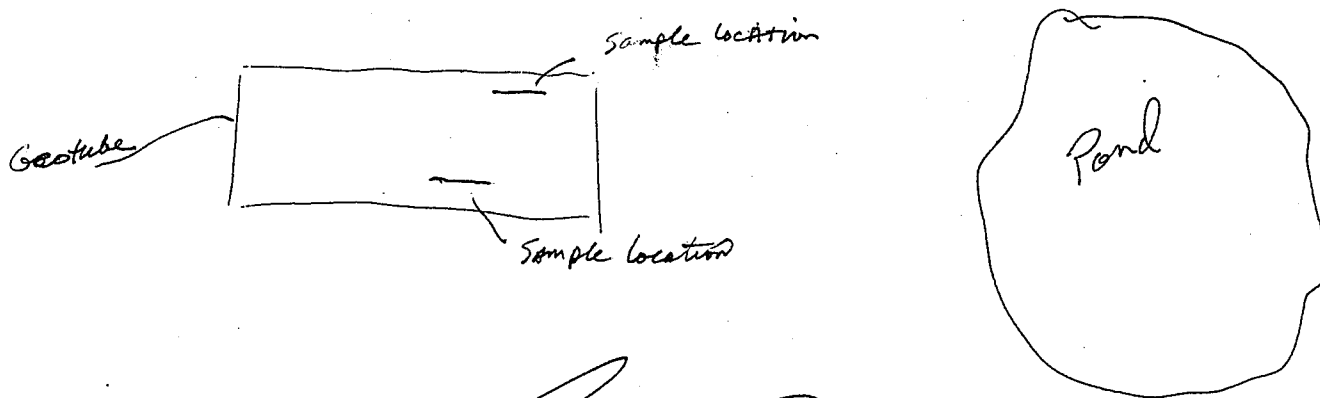
Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Total Metals Analysis of TCLP Metals in Soil ^{Waste} by ICAP
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Soil ^{Waste}

Sample Comments:

(N/A)

white/gray wet sample of Gypsum sludge. Sample collected from Geotube of sludge removed from sludge pond. Two composites used - one from each side of geotube that at 6/24/03 sample device extended to center of geotube. Sample



Sample Collected By: _____

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 1694 Sample Number: 415 QC Code: FD Matrix: Solid Tag ID: 1694-11 11

Project ID: AJA05 Project Manager: Jim Aycock
Project Desc: Climax Molybdenum Smelter site
City: Fort Madison State: Iowa
Program: RCRA Enforcement

Location Desc: _____

Storet ID: _____ External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date _____ Time(24 hr) _____

Latitude: _____ Sample Collection: Start: 6/24/03 13:50
Longitude: _____ End: 6/24/03 13:57

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Total Metals Analysis of TCLP Metals in Soil ^{Waste} by ICAP
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Soil ^{Waste}

Sample Comments:

(N/A)

Duplicate Sample of 7694-1

Sample Collected By: _____

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 1694 Sample Number: 3 QC Code: ___ Matrix: Solid Tag ID: 1694-3-___

Project ID: AJA05 Project Manager: Jim Aycock
Project Desc: Climax Molybdenum Smelter site
City: Fort Madison State: Iowa
Program: RCRA Enforcement

Location Desc: _____

Storet ID: _____ External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date _____ Time(24 hr) _____

Latitude: _____

Sample Collection: Start: 6/24/03 14:05

Longitude: _____

End: 6/24/03 14:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Total Metals Analysis of TCLP Metals in ^{Waste} Soil by ICAP
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Soil ^{Waste}

Sample Comments:

(N/A)

Gray fine material with small chunks of solid material - Reactor
(reactor) cleanout waste. Composite sample collected from a small
6/24/03 wooden tote ~ 3 ft x 3 ft x 3 ft. or about 1 cubic yard tote.

Sample Collected By: _____

ACTIVITY LEADER(Print) Jim Aycock		NAME OF SURVEY OR ACTIVITY Climax Molybdenum		DATE OF COLLECTION 06 DAY 24 MONTH 03 YEAR		SHEET 1 of 1			
CONTENTS OF SHIPMENT									
SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER					dust	other		
AJ4051694-1		1						✓	
" " -1FD		1						✓	
✓✓-3		1							✓
<div>Complete</div>									
DESCRIPTION OF SHIPMENT					MODE OF SHIPMENT				
3 PIECE(S) CONSISTING OF BOX(ES)					COMMERCIAL CARRIER:				
1 ICE CHEST(S); OTHER					COURIER				
					SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER)				
PERSONNEL CUSTODY RECORD									
RELINQUISHED BY (SAMPLER)		DATE	TIME	RECEIVED BY		REASON FOR CHANGE OF CUSTODY			
Jim Aycock		6/25/03	1636	Nicholas Kohls		Analysis			
SEALED UNSEALED				SEALED UNSEALED					
RELINQUISHED BY		DATE	TIME	RECEIVED BY		REASON FOR CHANGE OF CUSTODY			
SEALED UNSEALED				SEALED UNSEALED					
RELINQUISHED BY		DATE	TIME	RECEIVED BY		REASON FOR CHANGE OF CUSTODY			
SEALED UNSEALED				SEALED UNSEALED					


**United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101**

Date: 07/21/2003

Subject: Transmittal of Sample Analysis Results for ASR #: 1694

Project ID: AJA05

Project Description: Climax Molybdenum Smelter site

From: 
Dale I. Bates, Director
Regional Laboratory, Environmental Services Division

To: Jim Aycock
ARTD/RESP

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition memo for this ASR.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Jim Aycock**Org:** ARTD/RESP**Phone:** 913-551-7887**Project ID:** AJA05**Project Desc:** Climax Molybdenum Smelter site**Location:** Fort Madison**State:** Iowa**Program:** RCRA Enforcement**Purpose:** Compliance Monitoring**Explanation of Codes, Units and Qualifiers used on this report****Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

___ = Field Sample
FD = Field Duplicate

mg/L = Milligrams per Liter
mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

ASR Number: 1694

Sample Information Summary

07/21/2003

Project ID: AJA05

Project Desc: Climax Molybdenum Smelter site

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - ___		Waste	Sample collected from geotube of sludge removed from sludge pond		06/24/2003	13:50	06/24/2003	13:57	06/26/2003
1 - FD		Waste	Sample collected from geotube of sludge/Field Duplicate of sample 1		06/24/2003	13:50	06/24/2003	13:57	06/26/2003
3 - ___		Waste	Composite sample collected from small wooden tote		06/24/2003	14:05	06/24/2003	14:15	06/26/2003

Analysis	Comments About Results For This Analysis
----------	--

1 TCLP Metals in Haz. Waste

Lab: RECAP Contract Lab (Out-Source)**Method:** Similar to EPA Region 7 RLAB Method 3122.3A Applied to TCLP extracts (see comments)**Samples:** 1-__ 1-FD 3-__**Comments:**

1 Total Metals of TCLP in Hazardous Samples by ICAP

Lab: RECAP Contract Lab (Out-Source)**Method:** Similar to EPA Region 7 RLAB Method 3122.3A (see comments)**Samples:** 1-__ 1-FD 3-__**Comments:**

(N/A)

ASR Number: 1694

RLAB Approved Sample Analysis Results

07/21/2003

Project ID: AJA05

Project Desc: Climax Molybdenum Smelter site

Analysis/ Analyte	Units	1-__	1-FD	3-__
1 TCLP Metals in Haz. Waste				
Arsenic	mg/L	0.025 U	0.025 U	9.5
Barium	mg/L	0.069	0.064	0.29
Cadmium	mg/L	0.005 U	0.005 U	0.2
Chromium	mg/L	0.005 U	0.005 U	0.005 U
Lead	mg/L	0.025 U	0.025 U	1.7
Selenium	mg/L	0.59	0.61	0.26
Silver	mg/L	0.005 U	0.005 U	0.005 U
1 Total Metals of TCLP in Hazardous Samples by ICAP				
Arsenic	mg/kg	16.3	12.9	186
Barium	mg/kg	14.8	12.9	8.4
Cadmium	mg/kg	1.2 U	1.2 U	4.1
Chromium	mg/kg	25	22.9	0.51 U
Lead	mg/kg	6 U	5.8 U	149
Selenium	mg/kg	126	105	22.1
Silver	mg/kg	1.2 U	1.2 U	0.51 U

DOCUMENT CONTROL SHEET

Media:

AIR	RCRA	WATER	OTHER SPECIFY
	X		

INSPECTION DATE June 24, 2003

FACILITY/SITE NAME & LOCATION Climax Molybdenum Co.

State:

IA	KS	MO	NE
X			

Fort Madison

The follow documents pertaining to this activity are contained in this package:

<u>Document</u>		<u>Yes</u>	<u>No</u>	<u>NA</u>
Final report w/attachments	<u>50</u> Pages	(X)	()	()
Field sheets	<u>3</u> Pages	(X)	()	()
Chain-of-custody records	<u>1</u> Pages	(X)	()	()
Field notes	<u>0</u> Pages	()	(X)	()
Analytical data sheets	<u>0</u> Pages	()	()	(X)
Photographic negatives (9 negatives)	<u>1</u> Page	(X)	()	()
Photographs (not included w/report)	<u>0</u> Pages	()	(X)	()
Preinspection packet	<u>0</u> Pages	()	(X)	()
Other documents (list below)		()	(X)	()
_____	<u>0</u> Pages			
_____	<u>0</u> Pages			
_____	<u>0</u> Pages			

(Note: if additional space is needed to list specific documents, utilize reverse side.)

CERTIFICATION

I, the undersigned, certify that all of the documents pertaining to this activity that were in my possession have been listed above and were included in this package at the time this statement was signed.


Activity Leader's Signature

9-5-03
Date Signed



Climax Molybdenum Company
Fort Madison, IA

6/24/03

Roaster clean out samples located in the tote where the
sample were taken.

A handwritten signature in dark ink, consisting of several overlapping loops and strokes, located in the lower-left quadrant of the page.

#9

Top

FOR GREASE OIL ONLY
Do not place any materials
other than used oil on this sign.

70-TK-08-16

Climax Molybdenum Company
Fort Madison, IA

6/24/03

Labeled used oil storage tank located in the moly
sulfide building, west chemical plant.

A large, stylized handwritten signature in black ink, consisting of several overlapping loops and strokes.

#4



Climax Molybdenum Company
Fort Madison, IA

6/24/03

Unlabeled and dated and open containers of spent
fluorescent tubes located in the domestic wastewater
treatment building.

A handwritten signature in black ink, appearing to be 'J. L. Smith', is written across the bottom left of the document.

#3



Climax Molybdenum Company
Fort Madison, IA

6/24/03

Empty 30-gallon container for waste acetone and
isobutyl alcohol, located in a building east of the
Admin. Building.

#1

Top



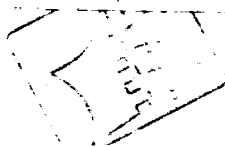
Climax Molybdenum Company
Fort Madison, IA

6/24/03

55-gallon container with aerosol can puncturing unit,
located in the maintenance shop. Container was labeled
and closed.

A large, stylized handwritten signature in black ink, consisting of several overlapping loops and strokes.

#2



STOP
CHECK WITH
GUARD BEFORE
ENTERING PLANT

STOP


No Open
Flame
Allowed

NO SMOKING
ALL STAFF
IN AREA

STOP
NO OPEN
FLAME
ALLOWED

NO SMOKING
ALL STAFF
IN AREA

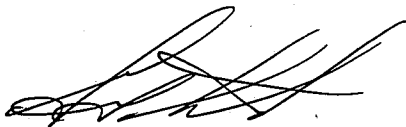




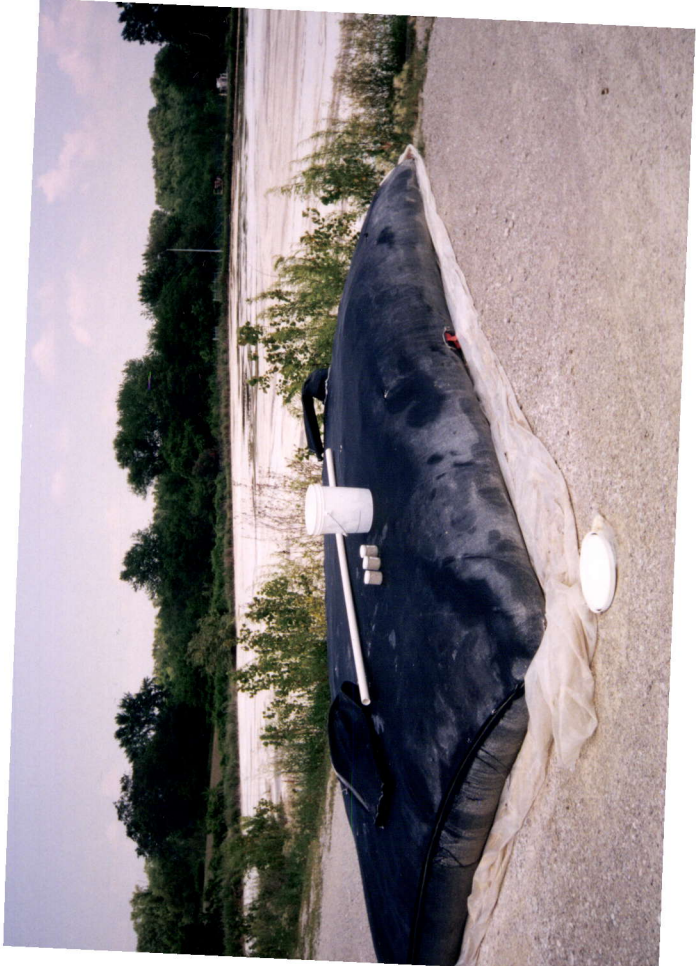
Climax Molybdenum Company
Fort Madison, IA

6/24/03

GPS reading in front of guard shack at main entrance.
Note GPS unit on pole for stop sign.



#6



Climax Molybdenum Company
Fort Madison, IA

6/24/03


Sludge samples on top of sludge drying bag. Note PVC
tube which was used to extract the sample.

A handwritten signature in black ink, consisting of several overlapping loops and strokes, located in the lower-left quadrant of the document.

#8







Climax Molybdenum Company
Fort Madison, IA

6/24/03

55-gal used oil storage container with filter crusher
locate above the container. Container was labeled and
located in the maintenance shop.

#5



STOP

SECURITY
ALL AREAS
NO ACCESS

STOP

CHECK WITH
CHAD REED



✓

Climax Molybdenum Company
Fort Madison, IA

6/24/03

Close up of GPS unit referenced in photo #6.

#7

✓